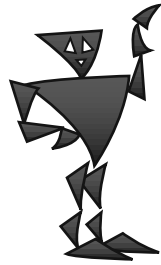


DAVIDSON'S LEARNING CENTER SERIES: GEOMETRY



Holy hexagons! Evil Geometrons are downsizing Zoid's home planet from 3-D to 2-D! Figure out the right angles and put the bad guys where they belong—in prism!

Multi-dimensional and multi-fun, Math Blaster makes learning an entire year's worth of geometry a blast! Venture through the planet in search of hidden

geometric puzzle pieces. Along the way, you'll learn geometric principles, encounter hundreds of practice problems, and check out the hyperlinked lessons and glossary that make geometry come alive!

Activities – As you search for each piece of the Dimension Machine, apply your geometry knowledge to fun multimedia activities. Test your wits, and watch out for Geometrons! You can also sharpen your spatial and geometric skills with the interactive Geoboard and Tangrams.

Resources – You'll get plenty of help from the on-line resources. Definitions, postulates, theorems, and a whole handbook of geometry are a click away!

HOW TO USE DLCS: GEOMETRY

For Learning Geometry – If you are new to geometry and want to learn it from scratch, then start with the Geometry Handbook. Click on the geometry book or the computer screen inside the trailer, or select Handbook from the Resources menu. Each of the 52 tutorial lessons will guide you through a topic with helpful examples, diagrams, and explanations. Try the problems to check your understanding.

For Reviewing Geometry – If you have taken geometry but need to review, try some practice problems in the Geometry Handbook to find your strong and weak areas. Review those lessons you need to brush up on, and while you're at it, check out the glossary, postulates, and theorems for a quick overview. The Geometry Handbook makes it easy for you to find just the right information you need.

For Having Fun With Geometry – If it's fun you're looking for, try the 10 colorful interactive games and activities. Find out how much geometry you really know, and explore the planet of Dimensia while you accompany Andi and Zoid on their mission. Check out the Tangrams to solve geometric puzzles and the Geoboard to design your own geometric figures.



ACTIVITIES

Your goal is to visit each building on the map of Dimensia, win each game, and collect the pieces of the Dimension Machine. Once you have all five machine pieces, go to the Sphinx. If you answer three questions correctly, you can enter the Dimension Machine and try to put it back together to restore Dimensia to three dimensions.



Building of Truth – Help Andi and Zoid obtain a piece of the Dimension Machine by classifying geometric figures. Read the statement that appears above Apothegm’s head. Look at the figure on each slab and decide whether the statement is true or false for that figure. Drag each slab into the correct column.



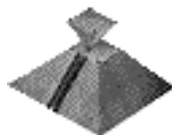
Pit of Despair – Shoot at targets to remove the shields protecting the Dimension Machine piece, while trying not to wake the sleeping Geometron guard. Aim the cannon, then press the Fire button to shoot the laser beam. Click the arrows to change the angle, or click the angle marks on the rim to adjust the angle of your shot.



Proof Palace – The proofs are out of order. Rearrange the statements or reasons on the glowing side by dragging the words and placing them in the correct order to match those on the carved side. Solve five proofs correctly to win.



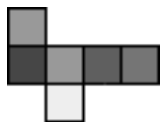
N-Gon Mountains – Scale the highest peak to reach the Dimension Machine piece, but watch out for those pesky Geometrons. Answer five multiple-choice questions correctly to win the Dimension Machine piece. Five incorrect answers will send you back to Andi's trailer.



Capitol Building – Play three games of concentration to capture the Dimension Machine piece hidden behind the walls. Click the bricks to uncover matching pairs based upon the rule that is shown. Keep making matches until all the bricks disappear.



Sphinx – Once you have all five Dimension Machine pieces, you must correctly answer three questions to unlock the door to the Dimension Machine. Answer wisely, or you must go back to the trailer to try again.



Dimension Machine – Use the pieces to repair the Dimension Machine and restore Zoid’s world to three dimensions! Use the colors to help you determine what each piece would look like if it were folded into a cube, then drag each flat piece onto the non-spinning cube that matches it. Remember, your only access to the machine is through the Sphinx.

THE GEOMETRY HANDBOOK

The Geometry Handbook is a comprehensive set of 52 lessons that cover a full year of geometry. Learn by using the hundreds of examples and practice problems. Click the geometry book or the computer screen inside the trailer (or select Handbook from the Resources menu). Choose a topic and a lesson from the list. Andi will help you get acquainted with the terms and figures you’ll learn about in each set of lessons.

The Topics

Points, Lines, and Planes

Triangles

Quadrilaterals and Other Polygons

Similarity

Circles

Perimeter and Area

Solids


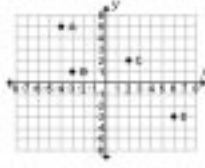
Coordinate Geometry

Transformational Geometry

Logic and Reasoning

FILE ACTIVITY OPTIONS RESOURCES HELP

Lesson 42: Locating Points on a Plane





How that you know how to plot and find points in the coordinate plane, let's look at how to find the distance between two points.

The distance between two points in the plane is always a positive value whose unit of measure is the distance from (0, 0) to (1, 0) in the plane.

Which ordered pairs describe the points A, B, C, and D shown in the coordinate plane?

A. (5, -4), (-3, 1), (2, 2), (-3, 6)
B. (-4, 5), (1, -3), (2, 2), (-3, 6)
C. (-4, -5), (-3, -1), (2, 2), (6, -3)
D. (-4, 5), (-3, 1), (2, 2), (6, -3)

Teach Practice Apply 

The Lessons

Each lesson consists of a set of instructional steps, with informative diagrams and animations help to make the concepts clear. Just click on the numbered boxes to step through the lesson. Click on a blue highlighted word to automatically link to the glossary.

The Problems

Click to choose one of the three types of problems available:

Teach – These step-by-step problems show you how to break a problem down and think it through in logical steps.

Practice – Use your new skills on these practice problems to be sure you have mastered the geometric skills and concepts.

Apply – Try these word problems that let you apply your knowledge of geometry to real-life situations.

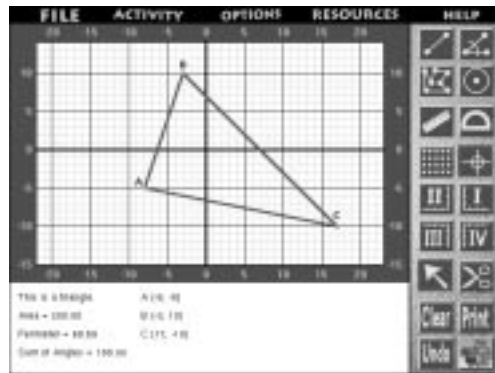
OTHER ACTIVITIES

This is your chance to explore geometry. Use these open-ended activities to expand your geometric intuition.

Tangrams – Solve Tangram puzzles by fitting the seven pieces into the shape. As you become familiar with similar shapes, reflections, rotations, and translations, you will find that you can solve the puzzles more easily! Flip through the library of tangrams and click on your choice.



Geoboard – The Geoboard allows you to construct, manipulate, measure, and analyze geometric figures. The Geoboard consists of a Shape Space, a palette



of tools, and an information window. Select tools and commands on the palette to construct a geometric figure in the Shape Space. Information about the selected construction appears in the information window. The data include the figure's geometric shape, area, segment lengths, and angle measures. When the Geoboard is set to a coordinate plane, the coordinates of each point are given as well.

See the On-line Help for additional information.

OTHER RESOURCES

You'll learn an entire year of high school geometry from the on-line resources available at any point in the program:

Glossary – The interactive Glossary, hyperlinked to the blue highlighted words in the Handbook, includes more than 150 important geometry terms along with illustrations and examples.

Postulates – The Postulates Pack contains important geometry postulates with illustrations.

Theorems – The Theorems Pack contains important geometry theorems with illustrations.

Constructions – Construct precise geometric figures using only a compass and a straightedge. Animations and explanations show you how to make nine classical constructions.

Calculator – The calculator is available at all times to help you.



THE MATH BLASTER[®] GEOMETRY TEAM

Learningways, a Division of Davidson & Associates, Inc.

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Special thanks to Shannon Sullivan and Mike Albanese.



BEFORE YOU CALL TECHNICAL SUPPORT

Please read the Troubleshooting section before calling and have the following information ready if and when you call:

Windows®

1. *Product name* and *version #* of the product. (See Help menu – About.)
2. The type of *processor* and *clock speed* (e.g., 486/66) of your computer.
3. Your *operating system's version number*. At the DOS prompt (c:\), type **ver** and press ENTER. The number will appear.
4. The *brand name of the sound device* installed in the computer.
5. The amount of *free memory* (memory available to run the program) you have. In Windows 3.1x, go to the Program Manager and select About Program Manager from the Help menu; in Windows 95, open My Computer on the desktop and select About Windows 95 from the Help menu. From the dialog box that appears, write down the Memory and System Resources values.
6. The complete and exact *error message* reported by the program.

Macintosh®

1. *Product name* and *version number* of the product.
2. The *model name* of your Macintosh.
3. The *system version #*. (See Apple menu – About This Macintosh.)

TROUBLESHOOTING TIPS

For additional Troubleshooting information, see the Readme file.

Windows® 3.1x or 95

- Close all other applications.
- If your computer is running an alternative desktop program, refer to that program's manual for information about setting your shell back to Windows 3.1x or Windows 95.
- If you are experiencing video-related problems, it may be due to your video display driver. Contact your computer vendor to make sure that the driver you are using is the most recent release.

Windows® 95

- Make sure the screen resolution is at 640x480 (best) or 800x600. If you have 8 MB of RAM, use 640x480 to conserve memory.
- Set the number of colors to be displayed to 256:
 - (1) Place the cursor anywhere on the Windows 95 desktop (not on any icons), then click the right mouse button and select Properties from the menu that appears. Click the Settings tab.
 - (2) Change the color palette to 256 colors and the Desktop Area to 640x480 pixels, then click the OK button.

Macintosh®

If you have difficulty running the application, receive memory errors, or have graphics problems:

- An extension may be conflicting with DLCS: Geometry. Disable all non-essential extensions. (Essential extensions include QuickTime, Sound Manager, and extensions for your CD-ROM drive.) Disable non-essential extensions by using Extensions Manager (System 7.5x or later), or place them in a folder called "Extensions (disabled)," then restart the computer.
- Try the following to improve performance:
 - (1) Close any unnecessary applications that may be running.
 - (2) Make sure your computer has at least 7 MB free RAM to run DLCS: Geometry.

DLCS: Geometry must be run with the CD in your CD-ROM drive.

TECHNICAL SUPPORT

Phone: (818) 246-4811, Automated Help 24 hours a day, 7 days a week

World Wide Web: <http://www.knowledgeadventure.com>

Fax: (818) 246-5604

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